

THAT WHICH IS CLAIMED:

1. A polymerization process comprising contacting in a reaction zone, at a temperature within a range of about 180°F to about 215°F, in the absence of hydrogen:

a) ethylene monomer;

5 b) at least one mono-1-olefin comonomer having from about 2 to about 8 carbon atoms per molecule;

 c) a catalyst system comprising chromium supported on a silica-titania support, wherein said support comprises from about 2 to about 10 weight percent titanium, based on the weight of the support, and wherein said catalyst system has been activated at a temperature within a range of about 10 900°F to about 1050°F; and

d) a trialkyl boron compound;

and recovering an ethylene/mono-1-olefin copolymer.

2. A process according to claim 1 wherein said reaction zone temperature is within a range of about 180°F to about 195°F.

3. A process according to claim 1 wherein said mono-1-olefin comonomer is selected from the group consisting of propylene, 1-butene, 1-pentene, 1-hexene, 1-octene, 4-methyl-1-pentene, and mixtures thereof.

4. A process according to claim 1 wherein said catalyst system is activated at a temperature within a range of about 965°F to about 1020°F.

5. A process according to claim 1 wherein said trialkyl boron compound is selected from the group consisting of tri-n-butyl borane, tripropylborane, triethylborane, and mixtures thereof.

6. A process according to claim 3 wherein said comonomer is 1-hexene.

7. A process according to claim 5 wherein said trialkyl borane compound is triethylborane.

8. A process according to claim 1 wherein said ethylene copolymer comprises:

- a) a density within a range of about 0.935 g/cc to about 0.96 g/cc;
- b) a high load melt index within a range of about 0.5 g/10 minutes to about 30 g/10 minutes; and
- c) a critical shear rate for the onset of melt fracture of greater than or equal to about 1200 sec⁻¹.

9. A composition comprising an ethylene/higher mono-1-olefin copolymer having:

- a) a density within a range of about 0.935 g/cc to about 0.96 g/cc;
- b) a high load melt index within a range of about 0.5 g/10 minutes to about 30 g/10 minutes; and

c) a critical shear rate for the onset of melt fracture of greater than about 1200 sec^{-1} .

10. A copolymer according to claim 9 having a density within a range of about 0.940 g/cc to about 0.955 g/cc .

11. A copolymer according to claim 9 having a high load melt index within a range of about 1 g/10 minutes to about 20 g/10 minutes .

12. A copolymer according to claim 9 having a critical shear rate for the onset of melt fracture of greater than about 1900 sec^{-1} .